WHAT IS CLAIMED IS:

1. A microconverter for converting and stabilizing supply voltage, said microconverter comprising:

a microinductor formed like a chip component; and

a semiconductor integrated circuit chip including a control circuit and mounted on a circuit board to form a module;

wherein stud terminals are arranged on the circuit board to support the microinductor thereon,

the stud terminals connect the microinductor and the circuit board electrically and mechanically and serve as buffer spacers spacing the microinductor and the circuit board,

the microinductor and the semiconductor integrate circuit chip are superposed on the circuit board,

the stud terminals connect the microinductor and the semiconductor integrated circuit chip to form a dc-dc converter on the circuit board, and

the circuit board is provided with side terminals for surface-mounting the circuit board on a wiring board included in an associated device and for connecting the dc-dc converter to a circuit formed on the wiring board of the associated device.

2. A microconverter according to claim 1, wherein the stud terminals are cylindrical.

3. A microconverter according to claim 1, wherein the stud terminals are spherical.

4. A microconverter according to claim 1, wherein the stud terminals are formed by coating heat-resistant resin members with a satisfactorily solderable metal.

5. A microconverter according to claim 1, wherein terminal electrodes of the microinductor to be soldered to the stud terminals are lands surrounded by annular mask patterns, respectively.

6. A microconverter according to claim 1, wherein the semiconductor integrated circuit chip is surface-mounted on the circuit board with its surface provided with an integrated circuit facing a mounting surface of the circuit board.

7. A microconverter according to claim 1, wherein the microinductor is a laminated magnetic-core inductor.

8. A laminated magnetic-core inductor comprising:

a helical coil formed by uniting alternately superposed insulating magnetic layers and conductive pattern layers; and

an annular closed magnetic path formed by the insulating magnetic layers and defining a magnetic field created by the coil;

wherein the coil has an inside diameter increasing toward the opposite open ends thereof so that opposite end parts thereof are flared to form the closed magnetic path

extending through the coil in a uniform sectional area.

9. A laminated magnetic-core inductor according to claim 8, wherein the conductive patterns forming a middle part of the coil are formed of relatively wide conductive lines and have a relatively small inside diameter, and the conductive patterns forming opposite end parts of the coil are formed of relatively narrow conductive lines and have a relatively big inside diameter.

10. A laminated magnetic-core inductor according to claim 8, wherein the conductive patterns have a rectangular shape having rectangular corners, and the coil has a rectangular cross section.

11. A laminated magnetic-core inductor comprising:

a helical coil formed by uniting alternately superposed insulating magnetic layers and conductive pattern layers; and

an annular closed magnetic path formed by the insulating magnetic layers and defining a magnetic field created by the coil;

wherein a magnetic gap is formed selectively in the insulating magnetic layers to uniformize irregular distribution of magnetic flux density due to the irregular distribution of magnetomotive force of the coil.

12. A laminated magnetic-core inductor according to claim 11, wherein the magnetic gap is formed by replacing part of the magnetic layers with a layer having a relatively

low magnetic permeability.

13. A laminated magnetic-core inductor according to claim 11, wherein opposite ends of the coil are connected by conductive lead lines to terminal electrodes corresponding to the opposite ends of the coil, respectively, and the number of turns of a wire of the coil is not an integer and is a mixed decimal.

14. A laminated magnetic-core inductor comprising:

a helical coil formed by uniting alternately superposed insulating magnetic layers and conductive pattern layers; and

an annular closed magnetic path formed by the insulating magnetic layers and defining a magnetic field created by the coil;

wherein the insulating magnetic layers have an inside part extending in the closed magnetic path defined by the coil, and an outside part extending around the closed magnetic path defined by the coil,

the coil has opposite ends connected by conductive lead lines to terminal electrodes corresponding to the opposite ends thereof, respectively, the coil has a part where the number of superposed conductive pattern layers is n (n is an integer not smaller than 1) and a part where the number of the superposed conductive pattern layers is n+1,

the width of the outside part in which a magnetic field is created by the n+1 conductive pattern layers is

smaller than that of the outside part in which a magnetic field is created by the n conductive pattern layers to uniformize the magnetic permeability of the closed magnetic path.

15. A laminated magnetic-core inductor according to claim 14, wherein an area of a pattern of an I-shaped outside part on the side of the conductive lead lines is 1/5 or less of an area of the pattern of a U-shaped part excluding the I-shaped outside part.

16. A laminated magnetic-core inductor according to claim 14, wherein an area of a pattern of an inside part formed inside the coil is approximately equal to an area of a pattern of an outside part around the coil.

17. A laminated magnetic-core inductor according to claim 16, wherein a circumference of the inside part is approximately equal to a length of a boundary between the U-shaped outside part and the conductive pattern.

18. A laminated magnetic-core inductor according to claim 14, wherein a width t of the conductive lead lines, a width w of the I-shaped outside part extending along the conductive lead lines, and a length k of the boundary between the conductive lead lines and the inside part meet a condition: $(w + t) \approx k/2$.

19. A microconverter according to claim 1 including the laminated magnetic-core inductor according to claim 8.